

F3782 Streaming Magnetic Tape Unit



The SPERRY F3782 Streaming Magnetic Tape Unit is a new concept in magnetic tape devices for Sperry. The technology utilizes half inch magnetic tape moving between tape reels without the use of vacuum columns. The design of the tape transport contributes to a low cost, high speed device that is a cost effective alternative as a dump/restore device for fixed media disk drives.

The streaming tape utilizes ANSI compatible half inch tape running at speeds of 100 ips and 25 ips in a data streaming mode. Reading and writing is done at either 160KB or 40KB per second when the tape is up to speed. When used at 25 ips the tape unit will imitate start/stop

tapes because of the relatively long gap passing time and instruction reinstruct time. The tape unit accepts magnetic tape reels between 7 inches and 10½ inches. Up to 2400 feet of tape is available on the maximum size reel. The tapes utilized must be certified for 1600 bpi Phase Encoded operation.

The streaming tape unit is rack mounted and will be available in various cabinet configurations. Up to four tape units may be connected into a subsystem. Consult your Sperry Sales Representative for the proper cabinet, control unit and configuration information for your SPERRY processor system.

The tape unit has an automatic threading function that does not require an industry standard wrap-around cartridge. These cartridges cannot be used on tape reels for this tape unit. When loading, the tape reel is inserted through the front access door of the tape unit. The reel will automatically be seated on the tape hub and threaded without further operator intervention after the load switch is depressed.

The size, price and convenience of the streaming tape units make them an attractive alternative in half inch tape and should provide a desirable data storage device for certain user applications such as dump/restore of fixed media disk drives.





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COLORS

Standard Colors

This tape unit is available in various cabinet configurations. The picture denotes cabinet on the SPERRY System 80. The user should consult a Sperry Sales Representative for color availability.

FUNCTIONAL CHARACTERISTICS

Operating Functions

Reads and writes nine track tape.
Reads forward and backwards,
writes forward only. Read after
write check capability.

Recording Modes/Densities

Phase Encoded (PE) 1600 bpi
(629.91 bpcm) only.

Tape Speed (Data Streaming Mode only)

100 ips (254 cm/s)
25 ips (63.5 cm/s)

Transfer Rate

160KB/second @ 100 ips
40KB/second @ 25 ips

Timings

@ 100 ips (Maximum)	
Gap Passing	6 ms
Access Time	225 ms
Reposition to Data	1020 ms
Position to Wait	750 ms
Command Reinstruct	
Read to Read	4.7 ms
Write to Write	2.7 ms

@ 25 ips (Maximum)	
Gap Passing	24 ms
Access Time	55 ms
Reposition to Data	225 ms
Position to Wait	160 ms
Command Reinstruct	
Read to Read	19.7 ms
Write to Write	11.7 ms

Rewind Speed (Maximum)

151.6 ips (385.1 cm/s)
2400 Feet in 190 seconds

Tape Media

0.5 inch (1.27 cm) wide up to 2400
feet (731.5 M) long. Compatible
tape reels between 7 inches and
10½ inches (17.78 cm and 26.67
cm) in diameter.

PHYSICAL CHARACTERISTICS

This tape unit is rack mounted and will be
available in several cabinet configurations.
Consult your Sperry Sales Representative
for cabinet dimensions.

POWER REQUIREMENTS

Power Consumption per Tape Unit:

280 watts maximum
220 watts nominal

Nominal Voltage:

104/120 VAC
208/220/240 VAC

Frequency:

50/60 HZ
50 HZ and 60 HZ

Heat Dissipation

(Maximum)
750 BTU's per tape unit

ENVIRONMENTAL CHARACTERISTICS

Storage Range

Temperature: -8°F to 117°F
-22°C to 47°C
Relative Humidity: 1% to 95%

Shipping Range

Temperature: -40°F to 144°F
-42°C to 62°C
Relative Humidity: 1% to 95%

Working Range

Temperature: 60°F to 90°F
16°C to 32°C
Relative Humidity: 20% to 80%